

# Fighting Position, or Deathtrap?

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All infantrymen must know how to construct solid, functional fighting positions. An improperly constructed position such as the one shown here is actually dangerous for the soldier to occupy. It will not provide the protection from fire that he needs, and it may even collapse onto him at any moment. Such unsafe structures should be torn down and re-built properly; otherwise a position designed to protect may well present an even greater danger.

Throughout history, the Infantry has been called upon to seize key terrain and then dig in solidly to hold it. Infantrymen, assisted by their brothers-in-arms the combat Engineers, build the field fortifications and fighting positions that are key to surviving the enemy's fire and repelling his assaults.

Well-constructed bunkers, trenches, and fighting positions protect infantrymen and allow them to fight and survive in the deadly environment of modern combat.

On every battlefield, from the muddy trenches of World War I to the sandy desert of the Persian Gulf, improperly

constructed positions have collapsed and killed or injured the soldiers they were intended to protect. Positions collapse in peacetime as well. At each of the combat training centers, soldiers in improperly designed, poorly supported, and badly constructed fighting positions have been injured when the overhead cover came crashing down or the sides collapsed in on them, smothering them even as their comrades struggled to dig them out.

It is the unit leaders' responsibility to prevent this from happening. Each of them, from squad leader through battalion commander, must learn the standards for proper construction of a fighting position, and must supervise and inspect the soldiers under him as they build their positions. The fundamental design of well-constructed fighting and survivability positions is not new. U.S. Army Engineers have validated several basic designs that will survive direct and indirect fire from most enemy weapons, and that will protect the men inside while they return fire.

Field Manuals (FMs) 5-103, *Survivability*, and 5-34, *Engineer Field Data*, contain detailed designs that ensure the structural integrity of the position and the safety of the occupants. The Infantry School has published Graphic Training Aid (GTA) 7-6-1, *Fighting Position Construction Infantry Leader Reference Card*, which contains multiple illustrations and detailed leader checklists. (These references are available at <http://www.adtdl.army.mil/atdl.html>.)

Unless the soldiers constructing a position and the leaders supervising the construction actually follow the design, the resulting position will neither protect the soldiers inside, nor survive enemy fire. Contrast the photo of the poorly constructed position shown here with the well designed, solidly built, functional fighting positions depicted in FM 5-103, shown in Figures 1 and 2.

In the drawings, you immediately notice the sturdy timbers, solidly supported on broad, level footings that hold up the heavy load of overhead cover. You do not see the unstable columns of rotting sandbags found in the photograph. The proper support of overhead cover is a vital aspect of a safe fighting position or observation post.

According to FM 5-103, sandy soil can weigh as much as 100 pounds per cubic foot. The 10' x 4' roof in the photograph, if covered with 18 inches of soil, could weigh 6,000 pounds. That's three tons! Unless the roof is waterproofed, that weight could double as the soil soaks up water during rains. That's nearly six tons balancing precariously over the head of the soldier manning that position.

A properly designed and built position provides 360-degree protection, instead of just shielding its occupants from the front. The position in the photograph clearly does not do that. It



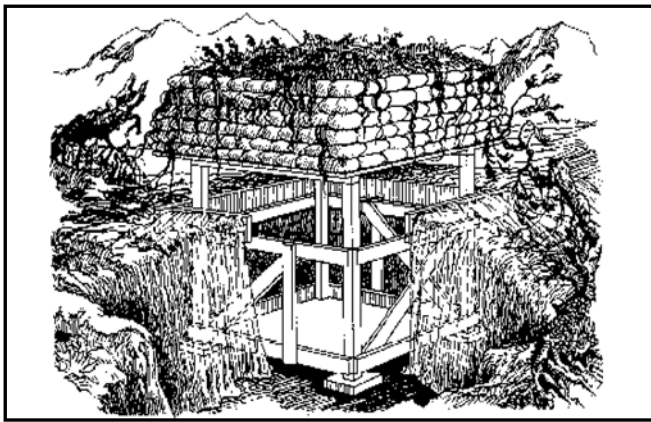


Figure 1

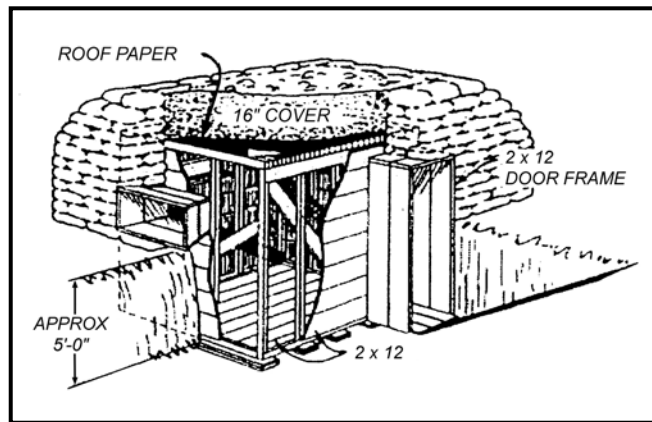


Figure 2

also lacks sufficient overhead cover, and the stringers appear to be too few and too far apart. The center column, along with the 4"x4" post at the right of the photograph, appears to have been added after the position was built, probably because the roof was sagging. It is too short and has been propped up on two sandbags, a totally inadequate footing. This column also would interfere with the soldier if he tried to engage targets from the oversized openings.

The selection, number, and placement of the stringers supporting overhead cover is critical to the safety of a position. Weak stringers, placed too far

apart, simply cannot carry the load.

Another key factor is the strength and location of the support base on which the stringers rest. If the base is too weak, or too close to the edge, the sides of the position will slump inward, possibly suffocating the occupants before they can be dug out.

Do not be intimidated by all of this talk of construction standards, footings, timbers, stringers, and spacing. It is not technical information that can be understood only by an engineer. This is simple soldier-skill stuff, and infantrymen have been building good, solid positions since before World War I.

Every soldier and every leader, com-

bat arms or not, must know this. Supervising the construction of fighting positions is one of the fundamental tasks of a noncommissioned officer. It has to be done to standard, because the lives of soldiers and the success of the mission depend on it. Learn how to inspect a fighting position. If you do, you will never have to dig the lifeless body of a soldier out of one that collapsed on him.

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# M41 TOW

## Improved Target Acquisition System (ITAS)

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The M41 TOW improved target acquisition system (ITAS) is a block upgrade to the M220 ground/high-mobility multipurpose wheeled vehicle (HMMWV)-mounted TOW 2 missile system. The TOW ITAS is currently being fielded to airborne, air assault, and light infantry forces throughout the active and reserve components of the U.S. Army. The ITAS, in addition to

providing better antiarmor capabilities to antitank units, also has capabilities that make it an integral part of the combined arms team. Even when organized in heavy-light task forces, where the preponderance of antiarmor capabilities traditionally has resided in the heavy elements, TOW ITAS-equipped antitank units can not only destroy threat targets but also provide superior recon-

naissance, surveillance, and target acquisition (RSTA), rear area protection, and urban operations capabilities.

The TOW ITAS consists of three new line replaceable units: the target acquisition subsystem (TAS), the fire control subsystem, and the battery power source; a modified TOW 2 traversing unit; the existing TOW launch tube and tripod; and a TOW HMMWV modifi-